

• COLORADO RIVER •
AQUEDUCT NEWS

THE METROPOLITAN WATER DISTRICT

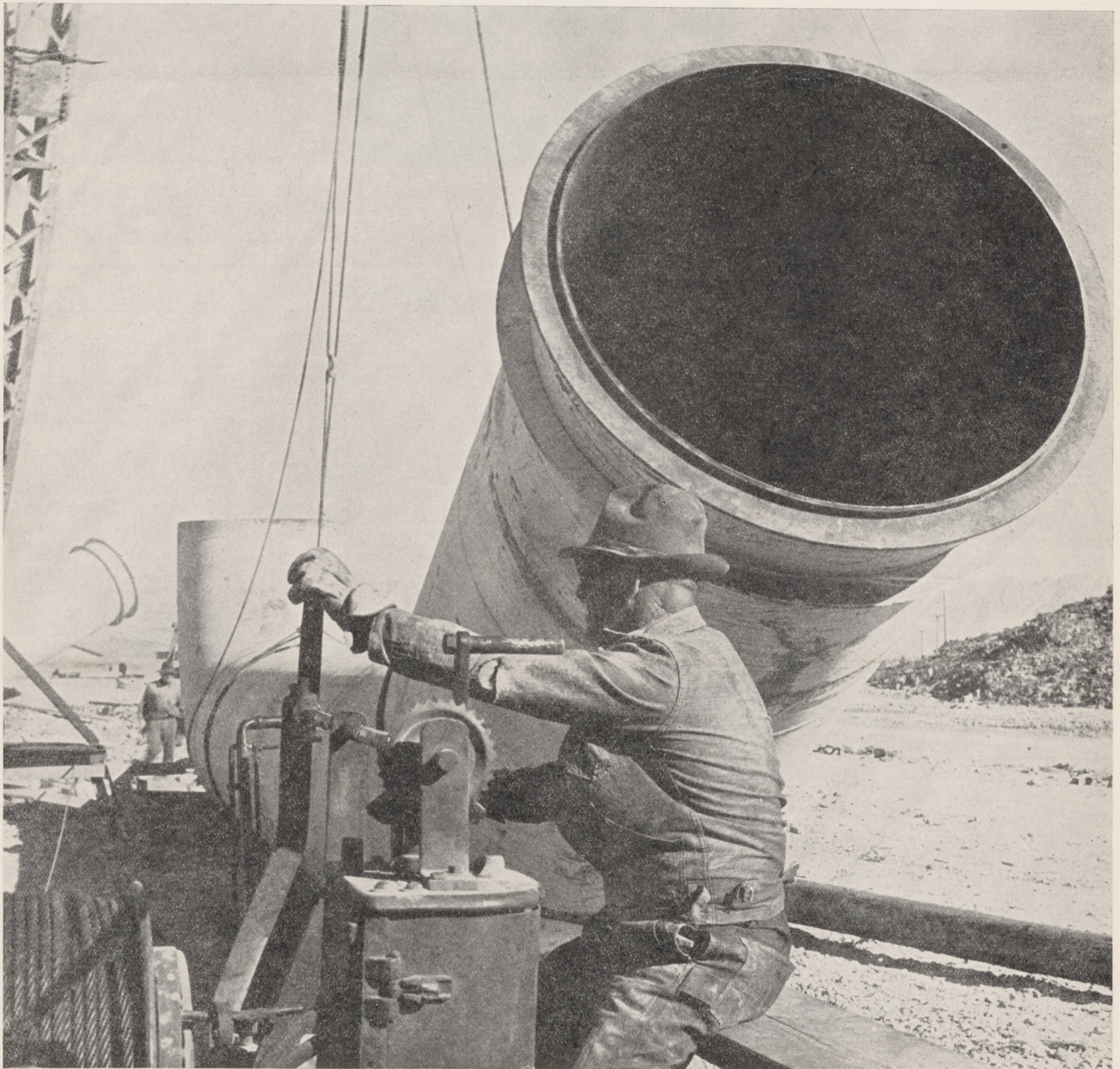


OF SOUTHERN CALIFORNIA

Vol. III.

NOVEMBER 25, 1936

No. 22



Winch operator landing a large steel pipe section at the site of the Eagle Mountain Pumping Plant. This section is one of the auxiliary inlet pipes which will carry water from the pumping plant forebay to the pumps.

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THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

LOS ANGELES, CALIFORNIA

Published twice monthly in the interest of Field and Office Workers on the Colorado River Aqueduct, and for the information of all other citizens of the Metropolitan Water District.

Vol. III November 25, 1936 No. 22

R. F. C. Board Members Inspect Aqueduct

Expressing themselves as being well pleased with the speed and economy with which the Colorado River Aqueduct is being constructed, a party of R.F.C. Board members and members of the engineering staff concluded an inspection trip of the aqueduct on Friday, November 20.

Included in the group were Senator Charles B. Henderson, and Charles T. Fisher, Jr., members of the board of directors of the Reconstruction Finance Corporation, and Robert J. Cummins of Houston, Texas, engineering consultant for the corporation. Senator Henderson and Mr. Cummins were met at Paker Dam by a number of M.W.D. engineers headed by Asst. Chief Engineer Julian Hinds. They were joined at the San Jacinto tunnel by Director Fisher, and Mr. Weymouth and Mr. Burkholder.

Bonds for financing aqueduct construction are being sold to the R.F.C. To date, this Federal corporation has purchased approximately 104 million dollars in M.W.D. bonds, and has agreed to bid on District bonds up to \$147,000,000.

Roscoe C. Musser of the Purchasing Division died Saturday, November 21, as a result of an automobile accident. He was first employed by the M.W.D. in January, 1933, and since that time he worked in the traffic section of the Purchasing Division. Mr. Musser was born on December 3, 1894, in Minneapolis, Minnesota, and came to Los Angeles in 1914. Prior to coming with the District, he had had a number of years of experience in railroad and truck freight traffic. He is survived by his wife and two sons.



Members of the R. F. C. party at the Potrero Shaft of the San Jacinto tunnel. Left to right: Charles T. Fisher, Jr., Senator Charles B. Henderson, Robert J. Cummins, Mr. Weymouth, and Mr. Hinds.

Directory

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Los Angeles.....D. W. Pontius
Los Angeles.....John R. Richards
Los Angeles.....Victor H. Rossetti
Los Angeles.....W. P. Whitsett
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Charles H. Toll, Treasurer
D. W. Pontius, Controller

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General Manager and Chief Engineer.....F. E. Weymouth
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Asst. Chief Engineer.....Julian Hinds
General Counsel.....James H. Howard
Asst. Gen. Counsel.....Arthur A. Weber
Asst. Controller.....J. M. Luney
General Supt.....James Munn
Chief Elec. Engineer.....J. M. Gaylord
Asst. to Gen. Mgr.....Don J. Kinsey
Secy. to Gen. Mgr.....Elisabeth von Hagen

DIVISION ENGINEERS

Divisions 1 & 2.....W. E. Whittier
Divisions 2 & 3.....John Stearns
Division 4.....R. C. Booth
Divisions 5 & 6.....J. B. Bond
Distribution.....R. B. Diemer
Transmission.....Robert N. Allen

SUPERINTENDENTS

(Main Aqueduct Tunnels)
Colorado River, Copper Basin and Whipple Mt. Tunnels, Walsh Construction Co., W. A. Huntington and L. M. Ramey, Tunnel Supts.
Coxcomb and East Iron Mt.

tunnels, Winston Bros., R. V. Johnson, Gen. Supt.
Iron Mt. Tunnel, West Portal, Utah Construction Co., Ben Arp, Gen. Supt.
East Eagle Mt. Tunnel and West Eagle Mt. Tunnel, east portion, Broderick & Gordon, John Will, Gen. Supt.
Coachella Tunnel, Dist. Force Acct., R. C. Booth, Gen. Supt.
East Coachella Tunnel and 1000 Palms Tunnel, Concrete, V. T. Davis, Supt., J. C. Fischer, Guy Taylor, Gen. Foremen.
All Coachella Siphon Construction, M. Hjalmarson, Supt.
West Coachella Tunnels and Conduits, Concrete, Edwin Noon, Superintendent.
Little Morongo, Excavation, R. Ferry, Supt.
San Jacinto Tunnel, District Force Acct., B. C. Leadbetter, Gen. Supt.; A. L. Simpson, John Austin and C. E. Sides, Tunnel Supts.; Chas. F. Thomas, Jr., Superintendent.
Valverde Tunnel, Dravo Contr. Co., R. W. Remp, Gen. Supt.; H. C. Richardson, Asst. Gen. Supt.; Fred Youmans, Tunnel Supt.

(Distribution Tunnels)

Monrovia tunnels Nos. 1, 2 and 3, West Construction Co., H. E. Carleton, Gen. Supt.; O. V. Humason, Peter Brisbois and Luther Dennis, Tunnel Supts.
Sierra Madre tunnel, J. F. Shea Co., Inc., Edmund H. Shea, Supt.
Pasadena tunnel, San Rafael tunnels Nos. 1 and 2, and Monrovia tunnel No. 4, L. E. Dixon Co., Bent Bros., Inc., and Johnson, Inc., S. D. Hackley, G. A. Scott and W. N. Evans, Supts.

(Canal, Siphon, Conduit)

Schedules Nos. 1, 1A, 1B, 10, 10A, 10B, 11, 11A, 11B, 11C, 13, 13A, and 13B, Aqueduct Construction Co., S. T. Corfield, Gen. Supt.; Charles Harlowe, Jr., Excav. Supt.
Schedules Nos. 2, 2A, 2B, 3,

3A, 3B, 7 and 7A, Barrett & Hilp and Macco Corp.; H. W. McKinley, Supt.

Schedules Nos. 4, 4A, 5 and 5A, Jahn & Bressi Construction Co., Joseph Muscolo, Gen. Supt.; Dominick Bressi, Asst. Gen. Supt.

Schedules Nos. 6, 8, 8A and 8B, Clyde W. Wood and M. J. Bevanda, A. F. Weesner, Gen. Supt.; L. L. Green, Excav. Supt.; A. V. Fisher and V. S. Price, Concrete Supts.

Schedules Nos. 9, 9A, 9B and 9C, The Utah Construction Co., Ben Arp, Gen. Supt.; E. C. Caldwell, Excav. Supt.

Schedules Nos. 12 and 12A, Three Companies, Inc., C. J. Kavanagh, Supt.

Schedules Nos. 14, 15 and 16, Thompson-Starrett Co., Inc., Rodney Smith, General Supt.; William Hayes, Excav. Supt.

Schedule 17, Dist Force Acct., H. Hjalmarson, Supt., (Fan Hill).
Schedule 18J, Morrison-Knudsen, J. O. Young, Gen. Supt.

Schedules Nos. 18, 19 and 20, J. F. Shea Co., Inc., H. F. Rennebohm, Supt.

Schedules Nos. 20A, 20B, 20C, 21, 22 and 23, The Griffith Co., Harry Davis, Supt.

(Distribution Pipe Line)

Schedules No. 4P & 5P, American Concrete & Steel Pipe Co., Wm. A. Whiting, Gen. Supt.; D. H. Rankin, Plant Supt. and Const. Supt.

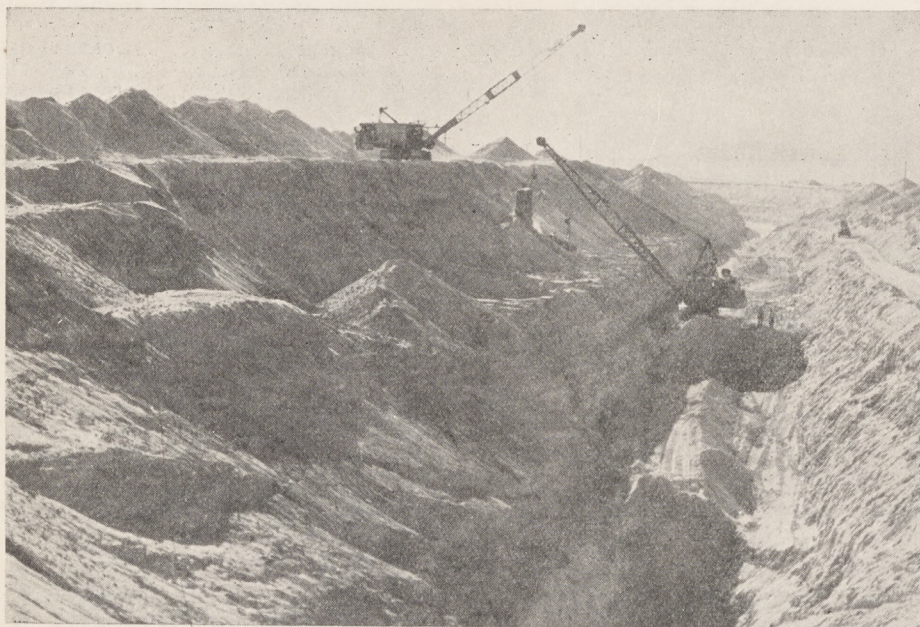
Schedules 6P & 7P, J. F. Shea Co., Inc., Gilbert Shea, Gen. Supt.; Don Lind, Plant Supt.

Schedule 8P, United Concrete Pipe Corp., John Huber, Plant Supt.; Charles Johnston, Const. Supt.

Schedules 2B & 2S, Western Pipe & Steel Co., L. L. White, Supt.

(Dams)

Cajalco dam, The Griffith Co., Harry Davis, Gen. Supt.
Parker dam, Six Cos., Inc., Frank Crowe, Gen. Supt.; E. A. Moritz, Eng. in charge.



Deep cut conduit excavation on Schedule 9 at the west portal of the Iron Mountain tunnel. The section is being constructed by the Utah Construction Co., Ben Arp, General Superintendent. Invert grade will be at the bottom of the deep hole in the immediate foreground.

ROSE PARADE FLOAT PLANS ANNOUNCED

Setting a new mark for an early start on the design and construction of a float for the New Year's Day Tournament of Roses parade, the District's Board of Directors announced on Friday, November 20, their plan for symbolizing the construction of the Colorado River Aqueduct.

This plan, perfected through the cooperation of civic bodies in the thirteen member cities, calls for the selection of thirteen beautiful young women, one from each member city, to personify the spirit of the District's achievement in building the aqueduct. Avoiding premature disclosure of complete details, it was nevertheless revealed that the District

float will present a striking interpretation of this year's Tournament theme, "Romance." The float is being designed, and will be constructed under the supervision of Dan Elliott of the Electrical-Mechanical Division.

The young women to represent their cities on the float will be drawn from junior colleges in the cities which have these institutions, and in the other cities from the senior classes of the high schools.

FEDERAL SOCIAL SECURITY ACT

Because the Metropolitan Water District is a governmental sub-division, its employees will not contribute to the fund established by the Federal Security Act. Contractor's employees, however, being employed by private firms, will contribute—with their employers, to the fund. The amount to be contributed by employees is based on a percentage of their salaries, and will be graduated as follows:

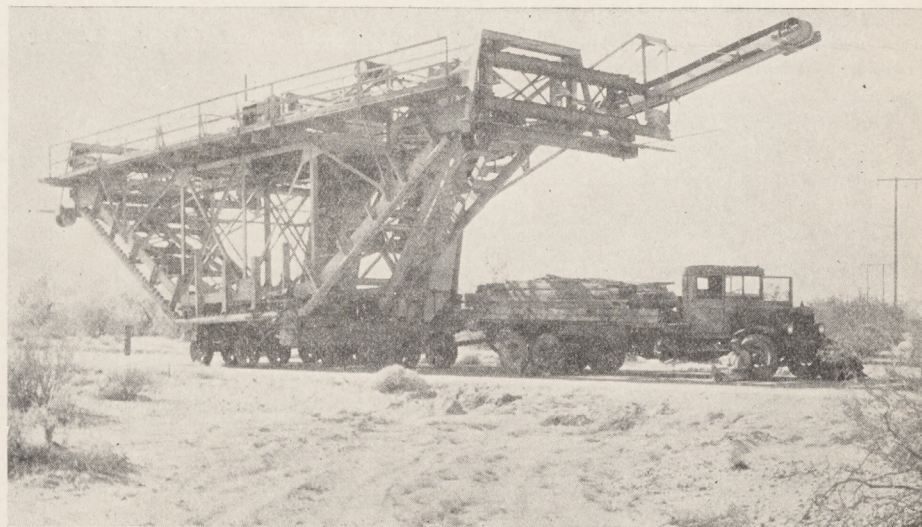
- 1937 to 1939—1% per year.
- 1940 to 1942—1½% per year
- 1943 to 1945—2% per year.
- 1946 to 1948—2½% per year.
- 1949 and thereafter, 3% per year.

Friday the 13th Completes Canal Schedule 13

A glance through back numbers of the NEWS will show that a large percentage of the construction features on the aqueduct have had a prominent tie-up with the 13th day of the month, and in many cases with Friday the 13th. "Best day's" progress have repeatedly been made on this date, which is apparently a good luck omen for aqueducters.

The latest job to fall in line is Aqueduct Construction Company's Schedule 13, out in Division 3. Believe it or not, the placing of concrete in the canal in Schedule 13, was completed on Friday the 13th of November. General Superintendent S. T. Corfield (see Who's Who in this issue) started the Aqueduct Company's crews on the canal lining job on April 20 of this year. The canal portion of this schedule totals 28,300 feet in length. Conduit and siphon sections are also included in the schedule. The canal paving crew made their best day on October 29, 1936, when they placed 568 lineal feet of canal lining. (Ed. Note: The record for lineal feet of canal lining placed in one day by one machine is 944 feet, made on Schedule 4 by Jahn and Bressi). The Aqueduct crews placed a total of 40,252 cu. yds. of concrete in the canal section of Schedule 13.

Allison Polley is the M.W.D. senior inspector on the job, and Bob Knight, Matt Hongola, and J. "Mac" McDonald, were the contractor's foremen.



Moving day on the aqueduct, although this particular move seems to be bogged down in favor of lunch. Aqueduct Construction Co. crew moving canal trimmer from Schedule 13 to Schedule 11 on Division 3.

TUNNELS

TUNNEL EXCAVATION (MILES)
Completed Remaining

Aqueduct	86.66	5.45
Distribution	15.19	1.01
Total	101.85	6.46

October 15 to November 15, 1936

*TUNNEL LINING (MILES)
Completed Remaining

Aqueduct	65.98	26.13
Distribution	4.86	11.30
Total	70.84	37.43

*Arch considered to equal 0.9 completed section.

TUNNEL PROGRESS

CONTRACTOR	TUNNEL	LENGTH IN FEET	EXCAVATION IN FEET					LINING IN FEET					
			NUMBER OF SHIFTS	AVERAGE PER SHIFT	THIS PERIOD	TOTAL TO DATE	REMAIN- ING	ARCH OR INVERT	NUMBER OF SHIFTS	AVERAGE PER SHIFT	THIS PERIOD	TOTAL TO DATE	REMAIN- ING
AQUEDUCT—CONTRACT													
WALSH CONSTRUCTION CO.	COLORADO RIVER	5,482		Completed		5,482	0	Arch			0	5,475	7
	COPPER BASIN NO. 1	705		Completed		705	0	Invert			0	5,475	7
	COPPER BASIN NO. 2	11,568		Completed		11,568	0	Arch			0	696	9
	WHIPPLE MOUNTAIN	(32,238)		Completed		(32,238)	(0)	Invert			0	696	9
	East from Adit	18,336		Completed		18,336	0	Arch	36	84.7	3,050	11,568	0
	West from Adit	13,902		Completed		13,902	0	Arch	0	0	4	11,568	0
WINSTON BROTHERS	IRON MT. (E. PORTION)	(23,645)				(23,645)	(0)	Invert	27	366.7	9,265	9,902	0
	East from Shaft	9,902		Completed		9,902	0	Arch			0	9,902	0
	West from Shaft	13,743		Completed		13,743	0	Invert			0	13,743	0
								Arch			0	13,743	0
UTAH CONSTRUCTION CO.	IRON MT. (W. PORTION)	16,208		Completed		16,208	0	Invert	15	331.9	4,971	16,208	0
WINSTON BROTHERS	COXCOMB (From E. Portal)	17,795		Completed		17,795	0	Arch			0	16,208	0
								Invert			0	0	17,795
BRODERICK & GORDON	E. EAGLE (From W. Portal)	9,440		Completed		9,440	0	Invert			0	0	9,440
	W. EAGLE (E. PORTION)	(15,845)		Completed		(15,845)	(0)	Arch			0	0	(15,845)
	East from Adit	7,871				7,871	0	Invert	54	107.6	5,810	7,659	212
	West from Adit	7,974				7,974	0	Arch			0	7,974	0
	TOTALS	Ft. Miles	132,926 (25.18)			132,926 (25.18)	0	Arch	90 42	98.5 339.0	8,864 14,236	105,454 57,592	27,472 75,334

AQUEDUCT—FORCE ACCOUNT

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA	EAST COACHELLA	(96,605)			Completed	(96,605)	0	Arch			0	28,512	0
	East Portion	28,512			Completed	28,512	0	Invert			0	28,129	383
	West Portion	68,093			Completed	68,093	0	Arch	81	57.4	4,649	48,464	19,629
	1000 PALMS NO. 1 (From W.P.)	16,058			Completed	16,058	0	Invert	80	51.6	4,126	0	68,093
	1000 PALMS NO. 2	3,838			Completed	3,838	0	Arch			0	13,941	2,117
	WIDE CANYON NO. 1	14,305			Completed	14,305	0	Arch			0	3,838	0
	WIDE CANYON NO. 2	848			Completed	848	0	Invert			0	14,305	0
	SEVEN PALMS (From E. Prtl)	4,810			Completed	4,810	0	Arch	17	251.1	4,269	4,269	10,036
	(From W. Prtl)	11,920			Completed	11,920	0	Arch			0	848	0
	LONG CANYON	15,305			Completed	15,305	0	Arch			0	16,730	0
	BLIND CANYON	6,836			Completed	6,836	0	Arch			0	15,305	0
	MORONGO NO. 1	5,725			Completed	5,725	0	Arch			0	6,836	0
	MORONGO NO. 2	1,902			Completed	1,902	0	Arch	25	75.7	1,892	0	5,725
	SAN JACINTO	(68,866)			Completed	(40,071)	(28,795)	Arch			0	1,892	10
	Cabazon Shaft to East Portal	8,880			0	8,880	0						
	Cabazon to Lawrence	26,817	93	4.1	381	10,247	16,570						
	Cabazon Pioneer	18,119	93	5.2	480	1,829	16,290						
	Lawrence Adit	5,651	93	2.1	195	1,680	3,971						
	Potrero Pioneer	15,163	93	5.4	598	3,352	11,811						
	Potrero to Lawrence	17,670	93	6.0	466	5,445	12,225	Arch	12	55.0	660	660	68,206
	Potrero Shaft to West Portal	15,499			Completed	15,499	0	Invert	32	206.5	6,607	14,953	53,913
TOTALS		247,018	186	4.5	847	218,223	28,795	Arch	198	57.2	11,327	151,331	95,687
		Ft. Miles			(0.16)	(41.33)	(5.45)	Invert	49	221.9	10,876	51,189	195,829

DISTRIBUTION—CONTRACT

GRIFFITH CO.	CAJALCO OUTLET	2,439	22	9.1	200	2,439	0				0	2,439	
WEST CONSTRUCTION CO.	MONROVIA NO. 1 (From W.P.)	7,868			Completed	7,868	0		48	38.8	1,861	7,523	273
	MONROVIA NO. 2 (From Jct. 1)	940			Completed	940	0		15	17.3	260	260	596
	MONROVIA NO. 3	(32,105)			Completed	(29,733)	(2,372)				0	0	(32,094)
	East from Adit	11,340	88	4.2	372	11,340	0						
	West from Adit	20,765	88	5.5	482	12,946	2,372						
DIXON, BENT BROS. & JOHNSON	MONROVIA NO. 4 (From W.P.)	8,096	78	6.2	481	5,139	2,957				0	0	8,084
J. F. SHEA CO., Inc.	SIERRA MADRE (From E. Prtl)	6,700			Completed	6,700	0				6,700	0	
DIXON, BENT BROS. & JOHNSON	PASADENA EAST	5,546			Completed	5,546	0				5,546	0	
	PASADENA (From West Portal)	12,140			Completed	12,140	0		78	23.8	1,853	5,622	6,518
	SAN RAFAEL No. 1 (From W.P.)	4,047			Completed	4,047	0				0	0	4,028
	SAN RAFAEL No. 2 (From E.P.)	5,669	54	11.1	600	5,669	0				0	0	5,661
TOTALS		85,550	330	6.5	2,135	80,221	5,329	Full Section	141	28.2	3,974	25,651	59,663
		Ft. Miles			(0.40)	(15.19)	(1.01)				(0.75)	(4.86)	(11.30)

COMPLETED TUNNELS

CONTRACTOR	TUNNEL	Length in Miles	Work Started	Work Completed
MORRISON-KNUDSEN CO.	Mecca Pass, No. 1, 2 & 3	1.13	7-17-33	2-10-35
WEST CONSTRUCTION CO.	Whitewater Nos. 1 & 2	1.94	7-18-33	4-15-35
SHOFNER & GORDON	Hayfield No. 2	1.03	7-8-33	7-27-35
HAMILTON & GLEASON	Bernasconi	1.18	4-19-33	11-21-35
J. F. SHEA CO., INC.	Cottonwood	3.81	6-14-33	12-29-35
HUNKIN-CONKEY CON. CO.	Hayfield No. 1	1.84	10-21-33	1-9-36
DIXON & BENT BROS.	W. Eagle—West Portion	2.02	9-8-33	3-12-36
DRAVO CONTRACTING CO.	Valverde	7.20	6-7-33	10-18-36
TOTALS		20.15		

CANAL, CONDUIT, SIPHON & PIPE LINES

Project	CANAL, CONDUIT AND SIPHON (MILES)	
	Completed	Remaining
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State	DISTRIBUTION PIPE LINE (MILES)	
	Completed	Remaining
Alabama	1,000	1,000
Alaska	1,000	1,000
Arizona	1,000	1,000
Arkansas	1,000	1,000
California	1,000	1,000
Colorado	1,000	1,000
Connecticut	1,000	1,000
Delaware	1,000	1,000
District of Columbia	1,000	1,000
Florida	1,000	1,000
Georgia	1,000	1,000
Idaho	1,000	1,000
Illinois	1,000	1,000
Indiana	1,000	1,000
Iowa	1,000	1,000
Kansas	1,000	1,000
Kentucky	1,000	1,000
Louisiana	1,000	1,000
Maine	1,000	1,000
Maryland	1,000	1,000
Massachusetts	1,000	1,000
Michigan	1,000	1,000
Minnesota	1,000	1,000
Mississippi	1,000	1,000
Missouri	1,000	1,000
Montana	1,000	1,000
Nebraska	1,000	1,000
Nevada	1,000	1,000
New Hampshire	1,000	1,000
New Jersey	1,000	1,000
New Mexico	1,000	1,000
New York	1,000	1,000
North Carolina	1,000	1,000
North Dakota	1,000	1,000
Ohio	1,000	1,000
Oklahoma	1,000	1,000
Oregon	1,000	1,000
Pennsylvania	1,000	1,000
Rhode Island	1,000	1,000
South Carolina	1,000	1,000
South Dakota	1,000	1,000
Tennessee	1,000	1,000
Texas	1,000	1,000
Utah	1,000	1,000
Vermont	1,000	1,000
Virginia	1,000	1,000
Washington	1,000	1,000
West Virginia	1,000	1,000
Wisconsin	1,000	1,000
Wyoming	1,000	1,000
Total	1,000	1,000

Excavation	123.11	22.56
Concrete	114.84	30.83
Back Fill	53.12	30.39

Excavation	18.03	23.55
Concrete	16.15	25.43
Back Fill	14.11	27.47

October 24 to November 14, 1936

AQUEDUCT

SCHED. NO.	CONTRACTOR	FEATURES	Length In Feet	EXCAVATION—Feet			CONCRETE—Feet			BACKFILL—Feet		
				Period	To Date	Remain'g	Period	To Date	Remain'g	Period	To Date	Remain'g
1	AQUEDUCT CONSTR. CO.	Conduit and Siphons	22,025	0	22,025	0	0	22,025	0	0	22,025	0
2	BARRETT & HILP	Conduit and Siphons	30,569	0	29,314	1,255	0	24,584	5,985	0	22,400	8,169
3	AND MACCO CORP.	Canal and Siphons	40,499	0	39,574	925	1,802	35,506	4,993	1,720	3,897	8,448
4	JAHN & BRESSI	Canal and Siphons	53,218	0	53,218	0	0	53,218	0	0	1,992	1,083
5	CONSTR. CO.	Canal and Siphons	53,588	0	53,588	0	0	53,588	0	0	2,700	1,320
6	WOOD AND BEVANDA	Siphon	15,521	0	15,521	0	0	15,521	0	0	13,043	2,478
7	BARRETT & HILP & MACCO CORP.	Canal and Conduit	27,707	0	27,707	0	0	27,707	0	0	12,170	0
8	WOOD AND BEVANDA	Canal and Siphons	49,339	0	49,339	0	176	49,339	0	0	7,090	800
9	UTAH CONSTRUCTION CO.	Canal, Conduit and Siphons	47,363	546	46,882	481	613	44,687	2,676	0	1,975	4,224
10	AQUEDUCT CONSTR. CO.	Canal and Siphons	44,505	0	44,505	0	0	44,505	0	0	3,594	1,256
11	AQUEDUCT CONSTR. CO.	Canal, Conduit and Siphons	44,002	1,866	23,416	20,586	1,348	3,098	40,904	1,105	1,535	8,787
12	THREE COMPANIES, INC.	Conduit and Siphons	32,977	170	28,986	3,991	0	24,652	8,325	0	23,030	9,947
13	AQUEDUCT CONSTR. CO	Canal, Conduit and Siphons	31,965	3,955	29,348	2,617	9,897	29,918	2,047	212	212	3,453
14	THOMPSON-STARRETT CO.	Conduit and Siphons	32,366	0	32,366	0	0	32,366	0	0	32,366	0
15		Conduit and Siphons	35,849	3,737	10,880	24,969	3,802	6,771	29,078	4,090	5,150	30,699
16		Conduit and Siphons	19,359	0	0	19,359	0	0	19,359	0	0	19,359
17	M. W. D.—FORCE ACCT.	Conduit and Siphons	21,961	1,033	21,018	943	2,849	17,416	4,545	1,230	12,528	9,433
18	J. F. SHEA CO., INC.	Conduit and Siphons	27,537	1,434	21,334	6,203	3,303	21,510	6,027	550	14,939	12,598
19	J. F. SHEA CO., INC.	Conduit and Siphons	37,364	0	0	37,364	0	0	37,364	0	0	37,364
20		Siphons	18,618	0	18,618	0	0	18,618	0	0	18,618	0
20 A & B	M. W. D.—FORCE ACCT.	Siphons	735	0	705	30	0	0	735	0	0	735
3	WINSTON BROS. CO.	Siphon (Gene Inlet)	1,877	0	1,832	45	481	1,612	265	467	1,478	320
4	& WILLIAM C. CROWELL	Siphon (Copper Basin)	450	0	116	334	0	0	450	0	0	0
	TOTALS		689,394	12,741	570,292	119,102	24,271	526,641	162,753	9,374	200,742	160,473

DISTRIBUTION PIPE LINES

CONCRETE PIPE LINES												
1	AMER. CONC. & STL. PIPE CO.	Precast Concrete Pipe	12,227	0	0	12,227	0	0	12,227	0	0	12,227
2	WESTERN PIPE & STL. CO.	Welded Steel Pipe	54,530	4,119	28,085	26,445	3,366	18,744	35,786	2,380	10,649	43,881
3	AMER. CONC & STL. PIPE CO.	Precast Concrete Pipe	20,124	0	0	20,124	0	0	20,124	0	0	20,124
4			25,867	0	25,867	0	25,867	0	25,867	0	25,867	0
5			24,895	3,362	10,127	14,768	3,456	10,060	14,835	4,105	9,485	15,410
6	J. F. SHEA CO., Inc.	Precast Concrete Pipe	27,348	3,155	10,874	16,474	2,963	10,669	16,679	2,885	9,809	17,539
7			30,044	0	0	30,044	0	0	30,044	0	0	30,044
8	UNITED CONC. PIPE CORP.	Precast Concrete Pipe	24,525	2,175	20,275	4,250	1,961	19,931	4,594	2,800	18,678	5,847
	TOTALS		219,560	12,811	95,228	124,332	11,746	85,271	134,289	12,170	74,488	145,072

Miscellaneous Construction

October 24 to November 14, 1936

AQUEDUCT PUMPING PLANTS AND APPURTENANT WORKS

CONTRACTOR	FEATURES	EXCAVATION—Cu. Yds.				CONCRETE—Cu. Yds.				STEEL—Tons			
		Est.Quan.	Period	To Date	%	Est.Quan.	Period	To Date	%	Est.Quan.	Period	To Date	%
WINSTON BROS. CO. & WILLIAM C. CROWELL	Intake Plant	102,400	7,400	105,696	100+								
	Gene Plant	92,600	0	85,480	92.3	13,370	2,167	4,130	30.9	2,052	0	24.0	1.2
WOOD AND BEVANDA	Iron Mt. Plant	358,700	2,018	226,810	63.2	19,897	1,593	3,091	15.5	1,707	92.7	171.1	10.0
L. E. DIXON CO.	Eagle Plant	227,695	2,430	213,620	93.8	21,122	734	734	3.5	2,160	0	39.2	1.8
L. E. Dixon & Case Const. Co.	Hayfield Plant	328,900	53,600	94,600	28.8	32,319	0	0		2,738	0	0	0
TOTALS			65,448	726,206			4,494	7,955			92.7	234.3	

PARKER RESERVOIR—SIX COMPANIES, INC.

FEATURES	Est. Quan.	Period	To Date	Percent
Diversion Tunnels—Excav.	3,463 Ft.	0	3,463	100
Diversion Tunnels—Concrete	3,363	0	3,363	100
Dam Excavation	1,391,000 C.Y.	76,500	318,579	22.9
Dam Concrete	277,900 C.Y.	0	0	0

CAJALCO RESERVOIR—GRIFFITH COMPANY

FEATURES	Est. Quan.	Period	To Date	Percent
Diversion Tunnel	2,000 Ft.	0	2,000	100
Dam & Dike Excavation	651,000 C.Y.	22,806	468,217	71.9
Dike Fill	4,113,000 C.Y.	111,000	3,147,000	76.5
Dam Fill	3,410,000 C.Y.	42,000	886,800	26.0

COMPLETED FEATURES

BOULDER TRANSMISSION LINE—FRITZ ZIEBARTH					CANAL, CONDUIT AND SIPHON				
FEATURES	Length-Line MI.	Period	To Date	Percent	CONTRACTOR	FEATURE AND NAME OR SCHEDULE	Length in Miles	Work Started	Work Completed
Footings Constructed	237.0	3.0	178.0	75.1	UNITED CONC. PIPE CO M.W.D.—FORCE ACCT. MORRISON-KNUDSEN CO.	LITTLE MORONGO SIPHON FAN HILL COND. & SIPHON BIG MORONGO & SAN ANDREAS SIPHONS	0.13 0.32 1.86	2-27-34 10-21-33 2-12-35	8-20-34 11-19-34 9-16-36
Towers Erected	237.0	18.0	152.0	64.1	GRIFFITH COMPANY	Sch. No. 20-C, 21, 22, 23, 23A	12.79	1-5-35	10-13-36
Wire Strung	237.0	30.0	131.0	55.3	TOTALS		15.10		

Picnic Big Success In Spite of Breeze

The principal impressions gathered at the M.W.D. employees annual picnic, held at the West Portal of San Jacinto tunnel on November 8, were: The wind blew; it was a huge success, as testified by the fact that more than 700 aqueducters and their families attended; the wind blew; as advertised—strong men turned pale, children screamed, and women fainted at the wrestling bout between "Mudhen" Bacarella and "Wildcat" Naftally; the wind blew; the L. A. office proved where men are really men by winning the golf and tennis contests, and are only sorry that the wind blew so hard that the Field didn't want to play baseball; the meal was swell, in spite of the fact that the wind blew (has that been mentioned) and deposited a few beans, bean side down, in the laps of would-be diners; the Field did walk off with the horseshoes contest, which ought to prove something or other—Art Styles and Jim Henry of Berdoo being the "walker offers."

As a result of the tennis matches, the L. A. Tennis Club has taken a new lease on life, with several non-members having evidenced a desire to challenge into the ladder. Those interested should contact Merrill Johnson in Purchasing. The Golf Club is also steamed up, and as a result Jimmie Swinford in Accounting won both the low gross (85) and the low net (69) in the match at Griffith Park on Nov. 22. However, a note in the mail from the same James, and C. C. White, broadcasts a fervent "Pul-eeze" for more golfers to turn out for the next match—date to be announced.

SAFETY FLAG AWARDS

Tunnel Operations: Coachella Division

Berdoo won the Coachella Division Safety Flag Contest for October with a record of 50,045 man-hours worked, and no lost-time accidents. Fargo and Wide also worked the month without a lost-time accident.

San Jacinto Tunnel

East Portal shoved West Portal out of its long standing place of honor, and won the flag contest with 22,127 man-hours and no lost-time accidents. West Portal worked 52,316 hours, but had one lost-time accident.

Berdoo-Banning Shops

Banning again won this contest, and will fly the Safety Flag from November 15 to December 15.

MONTHLY REPORT REVIEWS ACTIVITIES ALONG THE AQUEDUCT LINE

(EDITOR'S NOTE: The following is a brief summary of some of the activities of the District as set forth in the monthly report of General Manager F. E. Weymouth, filed with the Board of Directors in November and covering work done in October.)

Legal Division

Amendments to the Metropolitan Water District Act, proposed to be introduced at the 1937 session of the State Legislature, have been prepared. Necessary documents for Interim Certificate No. 51 in the principal sum of \$1,800,000 were prepared.

Miscellaneous Activities Division

During the month of October, 2,018 employment applicants were cleared through the District's Labor Office. Of this number, 659 were made available for force account work, and 1,359 were made available to the contractors. This is the largest number of men to be cleared through the office in one month since it was established in January, 1933.

Field Engineering and Construction

Safety Engineering—See safety awards in first column.

Testing Laboratory—Approximately 329,279 barrels of cement were sampled and tested, and 1,356 concrete specimens were received from the construction work and prepared for test. A one-week course of instruction was given to 15 men who will be used as inspectors on concreting operations, bringing the total number of men receiving this instruction to 258.

Operation of Utilities—Between Sept. 15 and Oct. 16, 6,110,177 kw. hr. of power were used, 18,742 long distance telephone calls were handled, and 4,754,900 cu. ft. of water was delivered.

Aqueduct Construction—See tables, pages 4 and 5.

Electrical Engineering Division

See tables on pages 4 and 5 for construction progress on pumping plants and transmission lines. At the Caltech testing laboratory, tests were completed on all manufacturers' model pumps, and all laboratory test work was discontinued on October 31. Work was continued on the design of the outlet structure for Copper Basin reservoir, and foundation details were revised for the Intake and Iron Mt. pumping plants. Construction

of the 230-Kv. transmission line was 57.2 per cent completed as of October 31.

Civil Engineering Division

Specifications—Six sets of specifications were issued during the month, including those for cottages at Camino, Gene, Eagle Mt., Hayfield, and camp buildings at Div. 1 headquarters. Bids were opened on 11 sets of specifications, including pump discharge and butterfly valves to be installed in aqueduct pumping plants.

Design—The principal work of the design section during the month was analyses and studies on the Copper Basin and Gene Wash dams.

Materials—Orders placed for cement during the month totaled 329,000 barrels. Orders were placed for 1,987 tons of rail steel, and 1,283 tons of billet steel.

Distribution Division

Office Engineering—Estimates were continued of the cost of delivering Colorado River water to Orange County. Studies are in progress on the cost of serving certain higher areas in this county and San Diego County. Work was continued on plans and estimates for serving San Diego County.

Field Construction—See tables, pages 4 and 5.

Personnel Division

The net turnover for all divisions was 13.4 per cent. During October 109 classified positions were filled, 101 of which were permanent and 8 temporary.

Purchasing Division

Carload forwardings for the month totaled 1,402. A total of 2,465 purchase orders was issued, covering purchases amounting to \$284,025.

Accounting and Costkeeping

As of October 31, 1936, the total cost of the aqueduct was \$110,250,151.

NEWS FROM FIELD AND OFFICE

Mrs. Lillian Anderson, Mr. LeBaron's secretary in the Right of Way Division since September, 1932, resigned from the District on November 21. She admitted that she is going to get married, but to whom, and when, and where, she would not say. She is being replaced by Marvel Murray, formerly of the Personnel Division.



Chef Hugh Glass, of the Division 3 headquarters mess, finally caught up with one of those L. A. Office fellas who forgot their travel order. Only the fact that the guilty one's name was also Glass (Vernon, L. A. Mails and Files) saved him from instant extinction. He washed dishes, and how—to pay for his meal, but when he broke the last dish, out came the meat axe.

Here's a duck story, instead of a fish story: Bob Pitcher of the Cabazon warehouse went hunting the other morning and had a clock in the car to keep track of the time so that he wouldn't start shooting before the legal time. He set his wrist watch by the alarm clock, and at 7 A. M. he turned loose on the ducks—and promptly was himself bagged by a thicket full of wardens. It took Bob half the morning, and a lot of explaining to convince the wardens that the clock in his car must have been fifteen minutes fast. If he had only used the clock he goes to work by, everything would have been in order.

* * *

The citizens of Berdoo have announced that the Berdoo Athletic and Recreation Club is now open for business. It includes a golf course, the first hole of which will be from the water tank to the portal of the adit. If anyone ever makes the first hole, then they'll lay out a second. The club house is the camp recreation hall, which is now available for social activities.

Aqueduct Temperatures November 1 to November 15

	Max.	Min.
Div. 1	83°	38°
Div. 2	83°	43°
Div. 3	85°	41°
Div. 4	83°	44°
Divs. 5 & 6	79°	34°

It does seem like this sort of thing could be prevented, especially in a Safety Engineer's home. Tom Osgood received a four alarm hurry call from his wife the other day to come home *right now*. Grabbing a helmet, three fire extinguishers, and an oxygen mask, he dashed for the Osgood domicile—to find a rattlesnake ensconced in the front room. After eliminating it, a safety survey was made which indicated that the rattler had probably been brought in with the firewood. Tsk, tsk, tsk, Mr. Osgood, must we refer you to safety bulletin XXX-001.25?

* * *

Seventeen co-eds from Pomona College visited the main aqueduct on November 16 and 17. Last word reports from the field indicate that things are practically back to normal, although there is still a scarcity of shaving soap in the dormitories at Divisions 1 and 2.



RIDE, MISTER?

Margaret Swank, left, of the Executive Secretary's office, and Miriam Taylor of the Asst. Controller's office, wanted to see the construction work, but they didn't realize it was so far from here to there. The photographer found them, after they'd run out of gas, forlornly thumbing rides way out in the middle of the desert.

* * *

Banning reports that Dave Harmon of the Cabazon clerical force had a new arrival in his family last week, an 8½ lb. boy—name David Gregory. The report goes on to say that Dave had compiled a few figures on the event, but that apparently he got them mixed up with the size of his hat.



Presenting J. F. "Johnny" High, foreman for Thompson-Starrett Co. on Shaver's siphon, which, as the name indicates, is in the vicinity of Shaver's Summit. Johnny has been with the Thompson-Starrett Co. for more than eight years, and has been on M.W.D. aqueduct construction for two years. His crews also built the No Name Wash siphon on Schedule 14.

One of the interesting visitors at Cajalco recently was Ike P. Taylor, Chief Engineer of the Alaska Road Commission, with headquarters at Juneau. Twenty years ago Mr. Taylor, and R. B. "Dick" Ward, resident engineer at Cajalco, were Fairbanks bound. They munched 132 miles around Lake La Barge to catch the first boat down the Yukon River to work on the construction of the Alaska Railroad. Mr. Taylor is an old-time Reclamation Service man.

* * *

H. L. "Red" Harte, stenographer at Division 3 headquarters hasn't been out of camp since his vacation in June. He states that this is the only way he can save money for Christmas. However, the grapevine has it that it will take him until Christmas to pay up what he spent in June on the aforesaid vacation.

* * *

Ralph D. Baker has been transferred from the Caltech testing lab to the Electrical-Mechanical Division.

Pass the Hi-Grade

With the coming of Fall and cooler weather on the desert, guest houses at the various divisions are once again crowded to capacity with "city slickers" from the L. A. office. Mystifying and weird are the impressions that these same "c.s'ers" get from the mess table jargon that is passed their way by the natives.

Sitting between an instrumentman and an inspector, the "townie" vaguely wonders what it's all about as he hears: "Pass the hi-grade, please. Say, if you S.I.s don't stay out of the way of that dozer down in the ditch you're gonna' get scooped up. One of the cat drivers told me yesterday that the shovel runner had to shut down three times so he wouldn't hit you fellows. I'm afraid that packing that gun around has just tired you all out."

"Oh, yeah? Well if you hadn't taken so long throwing that chain when you were trying to help us out today we'd have been out of the road before that skinner let his goats walk all over us. I noticed you were dragging when you climbed over that jumbo today, and beside that, the walker over at the hole told me that his bull-cook has had to toss you out three times for mussing up the graveyard's bunks."

"Say, buddy, you better stay away from that hole. The shifter's laying for you for using his bull gang and gandy dancers to drive tacks for you. He says that last week he found you leaving the face with a nipper and two chuck tenders in tow and you had your eye on a powder monkey."

And thus it goes far into the night while the city fella's mouth opens wider and wider. After passing everything on the table, he finally finds out that "hi-grade" means milk, the kind you put in your coffee, but *not* the kind you drink out of a glass. Cautious inquiry reveals that a "bull-cook" doesn't cook anything, generally he's the dormitory flunky.

"Throwing a chain" has nothing to do with throwing (like you throw a rock), or a chain. Instead it refers to the trick of doing up a surveyor's tape into a neat figure 8, and then flipping it into a circle. A surveyor, of course, has long been known as an "S.I.", and "gun" may refer to either a transit or a level. By bedtime the "c.s'er" has learned that "gandy dancers" are track men, and that a "dozer" is a "cat" (caterpillar tractor) with a bull-dozer blade on the front of it. End of lesson.

Who's Who On the Aqueduct

OLIVER J. SCHIEBER Senior Engineer, Metropolitan Water District.

Born Bucyrus, Ohio, August 28, 1888 . . . Educated at University of So. Calif. and University of Wisconsin . . . 1912-14, Chief of Party on power development for Knoxville Power Company, Stone and Webster, and Pacific Light and Power Co. . . . 1915-17, U. S. Reclamation Service, Salt River Project . . . 1918-19, 1st Lt. Corps of Engineers, A.E.F. . . . 1920-1923, Estimating Engineer, Big Creek Project, So. Calif. Edison Co. . . . 1924-35, Assistant to Resident Engineer same project. . . .

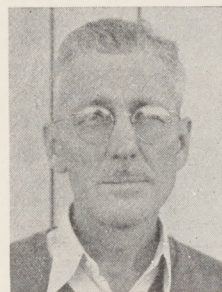


O. J. Schieber

1925-1931, Construction Department So. Calif. Edison Co. . . . With M.W.D. since October, 1931 . . . Senior Engineer Divisions 5 and 6 until work completed, then transferred to Division 4 . . . Is married and has two children.

S. T. CORFIELD General Superintendent, Aqueduct Construction Co.

Born in Auburn, N. Y., May 19, 1891 . . . Educated in Los Angeles . . . Started working for private engineers in Los Angeles in 1912 . . . 1914-1926 employed as engineer for California Highway Commission . . . 1920-26, Assistant Division Engineer, headquarters at



S. T. Corfield



T. W. Osgood

Fresno . . . 1926-1929, Construction Superintendent for H. H. Peterson Co., on street and state highway work . . . 1929-1933, Construction Superintendent for Hanrahan Company . . . 1933-35, Construction Superintendent for Peninsula Paving Company . . . 1935 to date, General Superintendent for Aqueduct Construction Co., M.W.D. schedules 10, 11, and 13 . . . He is married and has two sons . . . Hobbies are golfing and fishing.

T. W. OSGOOD Safety Engineer, Metropolitan Water District.

Born October 28, 1880, Fargo, North

Dakota . . . Educated at North Dakota State College, and Massachusetts Institute of Technology . . . 1903-04, railroad construction in Montana . . . 1905, assistant to resident engineer Colorado Fuel and Iron Co., Canyon City, Colo. . . . 1906, Assistant to Chief Engineer, Oregon Land and Water Co. . . . 1907-08, City Engineer, Medford, Oregon . . . 1909-17, private engineering practice, Medford, Ore. . . . 1918-33, with Industrial Accident Commission, State of California, first year and a half as Construction Safety Engineer, 14 years as Asst. Supt., Dept. of Safety . . . With M.W.D. since April 1, 1933, as Safety Engineer . . . Is married.

FIRST HONORS TO 1000 PALMS IN RIVALRY

Concreting operations at Fargo and 1000 Palms tunnels have settled down into a neck and neck race, with all hands avidly watching the daily progress charts. Both jobs are under the direction of Supt. V. T. Davis, and both are equipped with a single unit Pumpcrete machine, and the records are based on a yardage basis—thus no handicapping is required for the crews in either tunnel.

During the week ending November 21, General Foreman Bill Fisher's Fargo gang placed 4469 cu. yds. in the 18

shifts. This exceeded all previous records for a single unit machine in that number of shifts. However, during the same period, General Foreman Guy Taylor's crews at 1000 Palms placed 4633 cubic yards of concrete—18 shifts, and a single unit Pumpcrete. First round to 1000 Palms.

John Peeler, Division 2 inspector, was presented with a baby daughter on Armistice Day. The young lady, named Sarah Eleanor, weighed 7 pounds.